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UNIVERSITY

OF

PENNSYLVANIA

Catalogue for Session 1889-90

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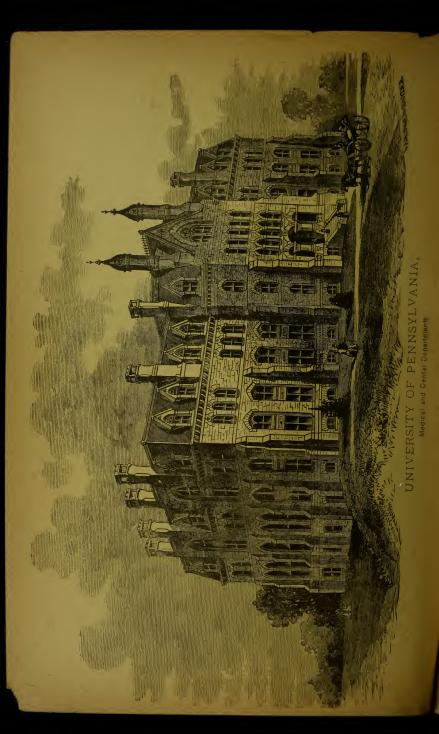
Announcement for Session 1890-91.

Department of Dentistry.

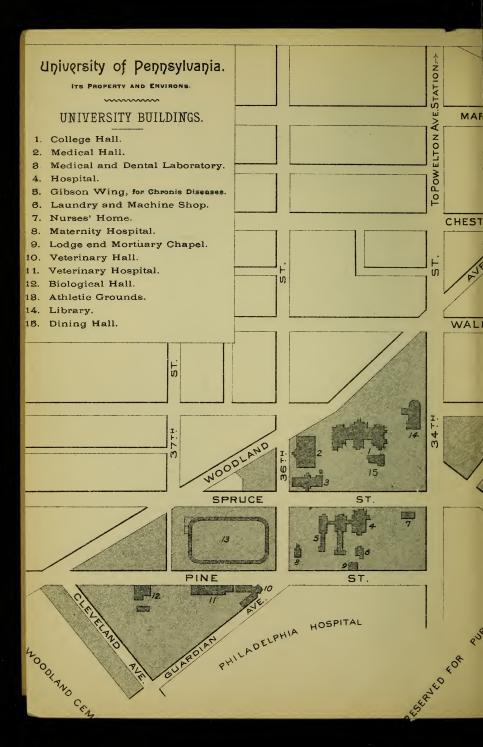
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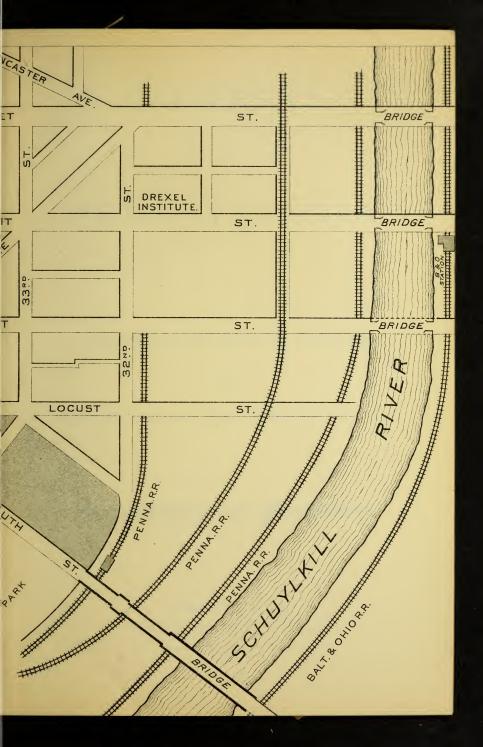
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UNIVERSITY OF ILLINOIS PHILADELPHIA
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UNIVERSITY

OF

PENNSYLVANIA

Catalogue for Session 1889-90

AND

Announcement for Session 1890-91.

Department of Dentistry.

PHILADELPHIA
PRINTED FOR THE UNIVERSITY
1890

1890.

JANUARY.

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| | | CALENDAR. |
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| | 1889. | |
| Sept. | 18, Wednesday. | Introductory Course begins: Departments of Medicine and Dentistry. 11 A.M. |
| " | 23, Monday. | First Term begins: College Department. 19 A.M. |
| Oct. | I, Tuesday. | Winter Session begins: Departments of Medicine, Dentistry, Veterinary Medicine, and Biology, and Auxiliary Department of Medicine. 12 Noon. |
| " | 7, Monday. | First Term begins: Course in Music. 2 P.M. |
| " | 7, Monday. | First Term begins: Department of Law. 4 P.M. |
| Nov. | 28, Thursday. | Thanksgiving Day. (With Friday, 29th, holiday.) |
| Dec. | 21, Saturday. | Christmas Recess begins: College Department. I P.M. Departments of Medicine, etc. 5.30 P.M. |
| | 1890. | CHRISTMAS RECESS. |
| Jan. | 3, Friday. | Christmas Recess ends. 9 A.M. |
| Feb. | 3, Monday. | Second Term begins: College Department and Department of Law. |
| " | 22, Saturday. | Washington's Birthday. Celebration in College Chapel, 11 A.M. |
| April | 2, Wednesday. | Easter Recess begins: College Department. 5 P.M. |
| | | EASTER RECESS. |
| " | 9, Wednesday. | Examination Resident Physicians, Maternity Hospital, 12 M. |
| " | 9, Wednesday. | Easter Recess ends: College Department. 9 A.M. |
| " | 14, Monday. | Final and Term Examinations begin: Departments of Medicine and Dentistry. |
| " | 22, Tuesday. | Examination for Resident Physicians, University Hospital. 12 Noon. |
| " | 25, Friday. | Last day for the receipt of Theses and Prize Essays, College Department. |
| May | I, Thursday. | Annual Commencement: Departments of Medicine and Dentistry. 12 Noon. |
| " | 3, Saturday. | Senior Examinations end: College Department. |
| May | 5, Monday. | Spring Session begins: Departments of Medicine and Dentistry. 11 A.M. Entrance Examination, Department of Medicine. |
| | | (a) |

| May | 19, Monday. | Examinations begin: Departments of Law and Veterinary Medicine, and Auxiliary Depart- ment of Medicine. |
|-------|----------------|---|
| " | 30, Friday. | Second Term ends: Department of Law. |
| June | 3, Tuesday. | Announcement of Results, Annual Examinations: College Department. 10 A.M. |
| " | 5, Thursday. | Annual Commencement: College Department, Departments of Law, Veterinary Medicine, and Auxiliary Department of Medicine. II A.M. |
| " | 6, Friday. | Entrance Examinations begin: College Department. 9 A.M. |
| | | SUMMER VACATION. |
| Sept. | 11, Thursday. | Entrance Examinations begin: College Department. 9 A.M. |
| " | 22, Monday. | Introductory Course begins: Departments of Medicine and Dentistry. 11 A.M. |
| " | 22, Monday. | First Term begins: College Department. 10 A.M. |
| " | 24, Wednesday. | Competitive Examination for Medical Scholarships. 12 Noon. |
| " | 25, Thursday. | Examinations for Admission to Advanced Standing and Re-examinations of Under- graduates: Departments of Medicine and Dentistry. 12 Noon. |
| " | 26, Friday. | Entrance Examination: Departments of Medicine and Veterinary Medicine. 12 Noon. |
| Oct. | ı, Wednesday. | Winter Session begins: Departments of Medi- |
| | | cine, Dentistry, and Veterinary Medicine, and Auxiliary Department of Medicine. 12 |
| " | 6, Monday. | First Term begins: Course in Music. 2 P.M. |
| " | 6, Monday. | First Term begins: Department of Law. 4 P.M. |
| Nov. | 27, Thursday. | Thanksgiving Day (with Friday, 28th, holiday). |
| Dec. | 20, Saturday. | Christmas Recess begins: College Department and Department of Law. 1 P.M. Department of Medicine. 5 P.M. |
| | 1891. | CHRISTMAS RECESS. |
| Jan. | 5, Monday. | Christmas Recess ends: College Department and Department of Law. 9 A.M. |
| • | 30. Friday. | First Term ends: College Department and Department of Law. |
| | | |

University of Pennsylvania.

A pamphlet, called: *Proposals Relative to the Education of Youth in Pennsylvania*, written in 1749 by Dr. Franklin, led to an association, by certain citizens of Philadelphia, for the purpose of founding a School on the lines suggested by that wise counsellor. Over two thousand pounds, equivalent to at least forty thousand dollars at the present time, were raised; a building, which had been erected to accommodate the thronged congregations of the celebrated Whitfield, was purchased; and in 1751 the Academy, consisting of an English, a Mathematical, and a Latin School, each under a Master, with subordinate tutors and ushers, was formally opened. So successful was the undertaking that in two years the Trustees applied to the Proprietaries for a Charter, which was thus granted:—

THOMAS PENN and RICHARD PENN, true and absolute proprietors and governors in chief of the province of Pennsylvania and counties of Newcastle, Kent and Sussex, on Delaware, To all persons to whom these presents shall come, greeting: Whereas, the well-being of a society depends on the education of their youth, as well as, in great measure, the eternal welfare of every individual, by impressing on their tender minds principles of morality and religion, instructing them in the several duties they owe to the society in which they live, and one towards another, giving them the knowledge of languages, and other parts of useful learning necessary thereto, in order to render them serviceable in the several public stations to which they may be called. And whereas, it hath been represented to us by Thomas Lawrence, William Allen, John Inglis, Tench Francis, William Masters, Lloyd Zachary, Samuel M'Call, junior, Joseph Turner, Benjamin Franklin, Thomas Leech, William Shippen, Robert Strettell, Philip Syng, Charles Willing, Phineas-Bond, Richard Peters, Abraham Taylor, Thomas Bond, Joshua Maddox,

William Plumsted, Thomas White, William Coleman, Isaac Norris, and Thomas Cadwalader, of our city of Philadelphia, gentlemen, that for the erecting, establishing, and maintaining an academy within our said city, as well to instruct youth for reward, as poor children whose indigent and helpless circumstances demand the charity of the opulent part of mankind, several benevolent and charitable persons have generously paid, and by subscriptions promised hereafter to pay, into their hands as trustees, for the use of the said academy, divers sums of money, which sums already paid, they, the said trustees, have expended in the purchase of lands well situated, and a building commodious for the uses aforesaid, within our said city in maintaining an academy there as well for the instruction of poor children on charity, as others whose circumstances have enabled them to pay for their learning, for some time past, and in furnishing the said academy with books, maps, mathematical instruments, and other necessaries of general use therein, according to the intentions of the donors. And whereas, the said trustees to facilitate the progress of so good a work, and to perfect and perpetuate the same, have humbly besought us to incorporate them and their successors.

Now know ve. That we favouring such pious, useful, generous, and charitable designs, hoping, through the favour of Almighty God, this academy may prove a nursery of virtue and wisdom, and that it will produce men of dispositions and capacities beneficial to mankind in the various occupations of life; but more particularly suited to the infant state of North America in general, and for other causes and considerations us hereto specially moving, have granted, ordained, declared, constituted, and appointed, and by these presents we do for us, our heirs, and successors grant, ordain, declare, constitute, and appoint, That the said Thomas Lawrence, and others, as before recited, and such others, as shall be from time to time chosen, nominated or elected in their place and stead, shall be one community, corporation and body politic, to have continuance for ever, by the name of The Trustees of the Academy and Charitable School in the Province of Pennsylvania.

In witness whereof, we have caused these our letters to be made

patent; in the twenty-seventh year of the reign of our sovereign lord, George the second, who now is king of Great Britain, France, and Ireland, etc., and in the year of our Lord, one thousand seven hundred and fifty-three.

Under the skilful training of the learned Rev. William Smith the highest class in this Academy attained that proficiency which, in a College course, would entitle it to a Degree. Accordingly, two years later the Proprietaries were again petitioned to convert the Academy into a College with the power of conferring Collegiate Degrees. The petition was granted substantially as follows:

Thomas Penn and Richard Penn, true and absolute proprietaries of the province of Pennsylvania, etc., to all persons to whom these presents shall come, greeting:

And whereas the said trustees have, represented, That since our granting our said recited charter, the academy therein mentioned, by the blessing of Almighty God, is greatly improved, being now well provided with masters, not only in the learned languages, but also in the liberal arts and sciences, and that one class of hopeful students has now attained to that station in learning and science, by which, in all well-constituted seminaries, youth are entitled to their first degree. Now know ye also, That we do hereby, for us, our heirs and successors, give and grant full power and authority to the said trustees and their successors, to constitute and appoint a Provost and Vice-Provost of the said college and academy, who shall be severally named and styled Provost and Vice-Provost of the same. And also to nominate and appoint professors in all the liberal arts and sciences, the ancient languages and the English tongue, which Provost, Vice-Provost, and Professors, so constituted and appointed, shall be known and distinguished as one body and faculty, by the name of The Provost, Vice-Provost, and Professors of the College and Academy of Philadelphia, in the province of Pennsylvania; and by that name shall be capable of exercising such powers and authorities as the said trustees and their successors shall think necessary to delegate to them, for the discipline and government of the said college, academy, and charitable school: Provided always, That the said trustees, the Provost and Vice-Provost, and each Professor, before they shall exercise their several and respective powers or authorities, offices, and duties, do and shall take and subscribe the three first written oaths appointed to be taken and subscribed, in and by one act of Parliament, passed in the first year of the reign of our late sovereign lord, George the first, intituled, An Act for the further security of his Majesty's Person and Government; and the Succession of the Crown in the Heirs of the late Princess Sophia, being protestants, and for extinguishing the hopes of the pretended Prince of Wales, and his open and secret abettors; and shall also make and subscribe the declaration appointed to be made and subscribed by one other act of parliament, passed in the twenty-fifth year of the reign of king Charles the second, intituled. An Act for preventing dangers which may happen, etc. excepting only the people called Quakers, who, upon taking, making, and subscribing the affirmations and declarations appointed to be taken, made, and subscribed, by the acts of General Assembly of the province of Pennsylvania, to qualify them for the exercise of civil offices, shall be admitted to the exercise of all and every the powers, authorities, offices, and duties above mentioned, any thing in this provision to the contrary notwithstanding And we do hereby, at the desire and request of the said trustees, constitute and appoint the Reverend William Smith, M.A., to be the first and present Provost of the said college and academy, and the Reverend Francis Allison, M.A., to be the first and present Vice-Provost of the same. And we do further, for us, our heirs and successors, give and grant to the trustees of the said college and academy, That for animating and encouraging the students thereof to a laudable diligence, industry, and progress in useful literature and science, they and their successors, met together on such day or days as they shall appoint for that purpose, shall have full power and authority, by the provost, to admit any the students within the said college and academy, or any other person or persons meriting the same, to any degree or degrees, in any of the faculties, arts, and sciences, to which persons are usually admitted, in any or either of the universities or colleges in the

kingdom of Great Britain. Provided always, and it is hereby declared to be our true meaning and express will, That no student or students, within the said college and academy, shall ever, or at any time or times hereafter, be admitted to any degree or degrees, until such student or students have been first recommended and presented as worthy of the same, by a written mandate, given under the hands of at least thirteen of the trustees of the said college and academy

In testimony whereof, we have caused these our letters to be made patent, and the great seal of our said province to be hereunto affixed this fourteenth day of May, in the twenty-eighth year of the reign of our sovereign lord, George the second, king of Great Britain, France, and Ireland, etc., and in the year of our Lord, one thousand seven hundred and fifty-five.

The First Commencement was held May 17th, 1757, when Paul Jackson, Jacob Duché, Francis Hopkinson, Samuel Magaw, Hugh Williamson, James Latta, and John Morgan received the Degree of Bachelor of Arts. In the agitated times that followed, during the wars with the French, the Provost, Mr. Smith, opposed so vehemently the non-resistance policy of the Legislature of Pennsylvania, that by an arbitrary stretch of power he was thrown into prison. In faithfulness to his duties as Provost, however, he received his classes in gaol, and continued his instructions to them there while still a prisoner. Finally he was set at liberty, for the purpose of going to England to make a personal appeal to the king, and his kindly reception there was not lessened by the strain to which his loyalty at home had been put. Oxford conferred on him the Degree of Doctor of Divinity. On his return home so highly did his fellow-citizens rate his influence abroad, that when in 1761 the Trustees were hard bestead they sent him back to England to raise funds for an endowment. It happened that King's College (now Columbia) in New York was in similar straits and had resolved on similar efforts. The two commissioners met in England and amicably resolved to "divide the land between them," and share the proceeds. Through the influence of the Archbishop of Canterbury they received a circular letter from the king to all churches, and succeeded in raising a very considerable endowment for each college.

On Dr. Smith's return, as it appears on the minutes of the 14th of June, 1764, a letter was received from the Archbishop of Canterbury, Thomas and Richard Penn, and the Rev. Samuel Chandler, D.D., addressed to the trustees, in which the trustees are congratulated on the success of Dr. Smith's, the provost's, collection in England, and advised of what would be further necessary to the due improvement of the collection and the future prosperity of the institution. "That the institution was originally founded and carried on for the general benefit of a mixed body of people—that on the king's brief it is represented as a seminary that would be of great use for securing capable instructors and teachers, as well for the service of the society for propagating the gospel in foreign parts, as for other protestant denominations in the colonies.—That at the time of making the collection, the provost was a clergyman of the Church of England—the vice-provost, a Presbyterian—a principal professor, a Baptist, with other useful professors and tutors, all carrying on the education of youth with great harmony, and people of various denominations have heretofore contributed liberally and fully.—That jealousies had arisen lest the foundation should be narrowed, and some party exclude the rest, or put them on a worse footing than they have been or were at the time of the collection, which would be unjust and productive of contentions unfriendly to religion. It was therefore recommended to the trustees, by the writers of the letter (who had a principal share in procuring the collection), to make a fundamental rule or declaration, to prevent inconvenience of this kind, and in doing which, they were advised that the more closely they kept in view the plan on which the seminary was at the time of the royal brief, and on which it was carried on from the beginning, so much the less cause would any party have to be dissatisfied."

A committee having been appointed to frame a fundamental *Resolve* or declaration, in consequence of the letter, the following

was reported and adopted:

"The trustees being ever desirous to promote the peace and prosperity of this seminary, and to give satisfaction to all its worthy benefactors, have taken the above letter into their serious consideration, and perfectly approving the sentiments therein contained, do order the same to be inserted in their books, that it may remain perpetually declaratory of the present wide and excellent plan of this institution, which hath not only met with the approbation of the great and worthy personages above mentioned, but even the royal patronage of his majesty himself. They further declare that they will keep this plan closely in their view, and use their utmost endeavors that the same be not narrowed, nor the members of the church of England, or those dissenting from them (in any future election to the principal offices mentioned in the aforesaid letter), be put on any worse footing in this seminary, than they were at the time of obtaining the royal brief. They subscribe this with their names, and ordain that the same be read and subscribed by every new trustee that shall hereafter be elected, before he takes his seat at the board."

Perhaps no more striking instance can be given of the distortion to which men's minds were subject in those days of political commotion than the fact that in 1779 this resolution was construed by the Legislature into a "narrowing of the foundation," and seized as a pretext for confiscating all the rights and proper ties of the College, which were bestowed upon a new organization called in its charter the "Trustees of the University of the State of Pennsylvania." Ten years later, these rights and properties were all restored, and in 1791 an act was passed amalgamating the old College in the new University, as follows:

WHEREAS, the trustees of the University of the State of Pennsylvania, and the trustees of the College, Academy, and Charitable School of Philadelphia, in the commonwealth of Pennsylvania, by their several petitions have set forth, that they have agreed to certain terms of union of the said two institutions, which are as follows:

First. That the name of the institution be "The University of Pennsylvania," and that it be stationed in the city of Philadelphia.

Second. That each of the two boards shall elect, from among themselves, twelve persons, who, with the governor for the time being, shall constitute the board of trustees of the University of Pennsylvania; and that the governor shall be president.

SECT. 2. And be it further enacted, That the said twenty-four

persons so elected and certified, together with the governor for the time being, who shall always be president, and their successors, be, and they are hereby made and constituted a corporation and body politick, in law and in fact, to have continuance for ever by the aforesaid name, style, and title of "The Trustees of the University of Pennsylvania," and that the said university shall at all times be stationed in the city of Philadelphia.

Thus established, the University has advanced with the times, and now comprises the following departments:

THE COLLEGE DEPARTMENT, including

THE COURSE IN ARTS,

THE COURSES IN SCIENCE,

(The Towne Scientific School),

THE COURSES IN NATURAL HISTORY,

(The School of Biology),

THE COURSE IN FINANCE AND ECONOMY,

(The Wharton School),

THE COURSE IN MUSIC.

The Department of Medicine.

THE DEPARTMENT OF LAW.

The Auxiliary Department of Medicine.

THE DEPARTMENT OF DENTISTRY.

THE DEPARTMENT OF PHILOSOPHY.

The Department of Veterinary Medicine.

The Department of Physical Education.

The Museum of Archæology and Palæontology.

PROVOST OF THE UNIVERSITY,

WILLIAM PEPPER, M.D., LL.D.,

President pro tempore of the Board of Trustees.

TRUSTEES.

THE GOVERNOR OF PENNSYLVANIA, ex-officio President of the Board.

REV. HENRY J. MORTON, D.D.,

FREDERICK FRALEY, LL.D.,

REV. CHARLES W. SCHAEFFER, D.D., LL.D.,

WILLIAM SELLERS,

J. VAUGHAN MERRICK,

RICHARD WOOD,

S. WEIR MITCHELL, M.D., LL.D.,

CHARLES C. HARRISON,

JAMES H. HUTCHINSON, M.D.,*

REV. GEORGE DANA BOARDMAN, D.D., LL.D.,

WILLIAM HUNT, M.D.,

HORACE HOWARD FURNESS, PH.D., LL.D.,

WHARTON BARKER,

SAMUEL DICKSON,

JOHN SCOTT,

JAMES MACALISTER,

JOHN C. SIMS, JR.,

HENRY H. HOUSTON, JOSEPH D. POTTS,

HON. HENRY REED,

HON. SAMUEL W. PENNYPACKER, LL.D.,

RT. REV. OZI WILLIAM WHITAKER, D.D.,

JOHN BARNARD GEST,

JOSEPH S. HARRIS.

REV. JESSE Y. BURK, Secretary, University.
WHARTON BARKER, Treasurer, 125 South 4th St.

^{*} Deceased.

| CHAIRMEN OF STANDING COMMITTEES FOR THE YEAR 1889-90. |
|---|
| WAYS AND MEANS: MR. HARRISON, IOI South Front Street. |
| BUILDINGS, ESTATES AND PROPERTY: MR. WOOD, 400 Chestnut Street. |
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Cortland, N. Y., Chas. W. McCall. C. W. Strang. Bridgeport, Conn., New Bedford, Mass., Joseph Head. Students of the Second Year, 72.

FIRST YEAR.

Aaron, Joseph B., Adamy, W. Lynn, Archinard, Louis D., Arrington, Wm. T., Jr., Baird, J. Free, Barlow, Myron, Barnard, George M. C., Barnes, Charles H., Boennecken, Henry, M.D., Berlin, Germany, Booker, Warren E., Borja, Arturo, Brenizer, William I., Brown, Oswald M., Burnett, James R., Caldwell, Frank L., Caldwell, Obe B., Carnill, Samuel, Carpenter, Elliott R., *Chambers, Percy A., Chupein, Charles P., Clearwater, Herbert B., Cregan, William H., Darrach, James S., Davis, Charles H., Deuel, Ernest C., Dilts, Charles H., Dreher, Augustus H., Fogg, J. Milton, Frey, George J., Gardiner, William H., Green, Edson M., Haines, Samuel S., Haines, William H., Herrera, Domingo, Hertz, Charles D., Hicks, Edward H., * Hill, Joseph M., Horter, William B., Howe, Fred. B., Jacobi, Sydney F., Joy, Fred. D., Larkins, Edward V., Laros, Henry M., Lawton, Burtis E., Lawton, George A.,

Buffalo, N. Y., Union, N. Y., New Orleans, La., Memphis, Tenn., Adamsville, Peru, Mass., Ware, Mass., Philadelphia, Worcester, Mass., Mexico, Mexico, Akron, Ohio, Paris, Ills., Paris, Ills., New York, N. Y., Danville, Ky., Duncansville, Pittsfield, Mass., Philadelphia, Scranton, Ware, Mass., Philadelphia, Tionesta, Sacramento, Cal., Trenton, N. J., Mt. Pleasant, N. C., Philadelphia, Buffalo, N. Y., Auburn, N. Y., Scranton, Rancocas, N. J., Cambridge, Ohio, Havana, Cuba, Milton, Philadelphia, Philadelphia, Philadelphia, Ithaca, N. Y., Evansville, Ind., Ilion, N. Y., Philadelphia, Allentown, Omaha, Neb., New Haven, Conn.,

Ellis & Payne. S. W. Adamy. A. G. Friedrichs. University. M. H. Felzer. University. University. University. University. University. University. J. H. Lancy. J. E. Adams. J. E. Adams. University. J. H. Letcher. N. P. Duffy. Grand Rapids, Mich., C. C. Chittenden. University. Theo. F. Chupein. University. University. University. W. W. Freeman. I. G. Shaw. D. N. Merrill. University. Isaac S. Fogg. University. F. E. Maine. University. University. Otto Arnold. University. G. E. Hertz. University. University. University. F. S. & J. B. Howe. G. W. Entsminger. C. Cutler Smith. University. University. Whinnery & Keim, D. L. Church,

Müller, Heinrich,

Naramore, Frank L., O'Conner, Patrick J., Ossa, Louis E. de la, * Patterson, Joseph H., Perry, Edward H., Jr., Putnam, Leon E., Rauch, Louis E., Ridgway, Shessie, Root, Frederick W., Rounds, Louie J., *Runge, William, Sallada, Earl Jay., Schwacke, Joseph W., Siddall, William A., Smith, Fred. A., *Smith, Harry D., Smith, Julian, Speakman, William C.,

Stephan, Louis, Tillotson, Charles H., Tinkham, Charles J., Jr., Townsend, William B., Ulrich, George R., Volk, Robert W. Watts, Clarence V., Waugaman, William H., Wells, Claude E., Wells, John I., Whitbeck, Theodore H., White, Elmer B., Wilson, C. Herbert, Wiltbank, John C., Woodcock, Robert P.,

San Josè, Costa Rica, University. Nashua, N. H., Philadelphia, Brisbane, Australia, Tidioute, Mauch Chunk, Pittston, Holyoke, Mass.,

Schaffhausen, Switz., Gschwend and

Rochester, N. Y., Pittsburgh, Panama, U. S. of Col., University. Philadelphia, Dorchester, Mass., Towanda, Philadelphia, Coatesville, Pittsfield, Mass., Vestal, N. Y., St. Charles, Mo., Ashland, Charleston, S. C., Oberlin, Ohio, Frankfort, N. Y., Vineland, N. J., Union, N. Y., Wilmington, Del.,

Milwaukee, Wis., Mattoon, Ills., Homer, Ills., Beatty, Selinsgrove, Pittsfield, Mass., Des Moines, Iowa, Harrison City, Lamar, Mo., Carthage, Mo., Alcove, N. Y., Ithaca, N. Y., Philadelphia, Milton, Del., Fall River, Mass.,

University. University. University. R. H. Stillson. J. A. Mayer. John McDougall. G. A. Maxfield and A. De Couagne. Billeter.

E. G. Link.

H. L. Reinecke.

University. University. P. J. & G. H. Smith. University. Wm. H. Shannon. S. S. Stowell, University. University. University. University. J. F. Siddall. C. Cutler Smith. University. University. R. H. John & J. M. Winner.

W. C. Wendel. S. A. Campbell. C. P. Howard. University. University. University. J. Watts. University. H. P. Wells. M. J. McClurg. H. L. Whitbeck. G. W. Melotte. University. University. A. DeCouagne and Z. V. Carvill.

Students of the First Year, 87.

* Not in attendance.

The total number of new matriculates the present session, including those admitted to advanced standing, is 104.

SUMMARY.

| Australia | Michigan |
|---------------|------------------------|
| Brazil 2 | Mississippi |
| California | Missouri |
| Canada | Nebraska |
| Connecticut 2 | New Hampshire |
| Costa Rica | |
| Cuba 4 | New York |
| Dolowero | New York |
| Delaware 2 | Nicaragua, C. A |
| England I | North Carolina |
| Florida | Nova Scotia 2 |
| Germany 7 | Ohio 6 |
| Hayti | Pennsylvania 56 |
| Illinois 6 | Prince Edward Island I |
| Indiana I | Scotland 3 |
| Iowa | South Carolina |
| Kentucky | Switzerland 4 |
| Louisiana | Tennessee I |
| Massachusetts | U. S. of Colombia I |
| Maryland | West Virginia |
| Mexico | |
| TATELLICO | Wisconsin 5 |
| | Total |
| | 10181 150 |

COURSE OF STUDY.

The Course extends over two years, and in each year there are two Sessions, the Winter and the Spring. By this arrangement, students are spared the necessity of securing a preceptor during their stay in the city; the Faculty deem attendance during the spring and summer months equivalent to private instruction. Such attendance, however, is not to be considered in any way a substitute for the Winter Session.

During the Winter Session the following is the arrangement of studies:

FIRST YEAR.

| Hour. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---------|--------------------------|-------------------------|-------------------------|-------------------------|---|--------------------|
| 9 A.M. | General Chemistry. | General Chemistry. | | | | |
| ю А.М. | Mechanical Clinic. | | | Mechanical Clinic. | Mechanical Clinic. | |
| 11 A.M. | | Chemical Laboratory. | Chemical Laboratory. | | | Dental |
| 12 M. | | | | | | Materia Medica. |
| 1 P.M. | Operative Clinic. | Operative Clinic. | Operative Clinic. | Operative Clinic. | Operative Clinic. | |
| 3½ P.M. | | Anatomy. | | Anatomy. | Anatomy. | |
| 4½ P.M. | Physiology. | Operative Dentistry. | Physiology. | Operative Dentistry. | Physiology. | |
| 5½ P.M. | Mechanical Dentistry. | | Metallurgy. | | Dental Pathology and Thera- peutics. | |

The curriculum of the first year is identical for Medical and Dental students as far as Anatomy, Chemistry, and Physiology are concerned.

SECOND YEAR.

| Hour. | Monday. | Tuesday. | Wednesday. | Thursday. | Friday. | Saturday. |
|---------|--|--|--|--|---|--|
| 9 A.M. | Laboratory of Mechani- cal Deutis- | Laboratory of Mechani- cal Deutis- | Laboratory of Mechani- cal Dentis- | Laboratory of Mechani- cal Dentis- | Laboratory of Mechani- cal Dentis- | Laboratory of Mechani- cal Dentis- |
| ю А.М. | try, or Operative Clinic. | try, or Operative Clinic. |
| 11 A.M. | Cinic. | Clinic. | Citile. | Chine, | Cillic. | Cillic. |
| 12 M. | Practical Histology. | Practical Histology. | Practical Histology. | Practical Histology. | Practical Histology. | |
| 2 P.M. | | Operative Clinic. | Operative Clinic. | Operative Clinic. | Operative Clinic. | |
| 2 P.M. | Operative Clinic. | | | | | |
| 3½ P.M. | | Anatomy. | Histology. | Anatomy. | Anatomy. | |
| 4½ P.M. | Physiology. | Operative Dentistry. | Physiology. | Operative Dentistry. | Physiology. | |
| 5½ P.M. | Mechanical Dentistry. | | Metallurgy. | | Dental Pathology and Thera- peutics. | |

For the study of Practical Histology the class is divided into five sections, one of which is occupied in the histological laboratory during the hours named. Those of the Senior Year, not thus engaged, attend the Operative and Mechanical Clinics.

In order to facilitate work in the practical departments, and to give full employment to the student, the morning hours of the first year are devoted equally to dental and chemical laboratory work.

During the second year the student has the entire forenoon of each day for practical dental work. Ample opportunity is afforded for practice in operative and mechanical dentistry. In the latter branch, the students of the Junior year are divided into sections, thus devoting the morning hours not otherwise engaged to practice in the operative and mechanical rooms.

COURSE OF INSTRUCTION.

The lectures on OPERATIVE DENTISTRY AND DENTAL HISTOLOGY embrace the comparative anatomy of the teeth, the functions and microscopical peculiarities of the dental organs, the development of teeth, their component tissues, a full description of the materials and instruments used in operative dentistry, a thorough elucidation of all dental operations, such as filling, extracting, regulating, the pathological relations of the teeth to the other parts of the system, and a minute description of all diseases related to dental surgery or of interest to the dentist. The methods taught are demonstrated in clinics.

The instruction in MECHANICAL DENTISTRY AND DENTAL METALLURGY embraces the proper fitting up of a dental laboratory, the use of tools, the melting, refining, alloying and working of metals and alloys used by the dentist, the chemical and physical properties of materials pertaining to ceramic dentistry, their preparation, and the most approved formulas for compounding bodies and enamels for the manufacture of block teeth and continuous gum work, the history and properties of all substances used in making artificial dentures, as well as the mechanical treatment of cleft palate, including the several methods of constructing obturators for such cases, whether congenital or acquired. The lectures in this department also include every approved mechanical means of correcting irregularities of the teeth, and are amply illustrated by specimens, models, diagrams, and practical application in the laboratory, under the supervision of accomplished mechanical dentists. Special attention will be

directed to the higher branches of plate work, the continuous gum process, and carving teeth.

Every student is required to furnish his own bench tools for metal and rubber work, and will be provided with a place in which they can be locked when not in use.

The lectures in CHEMISTRY embrace the study of chemical physics and principles of chemical philosophy, together with a detailed consideration of the principal elementary substances and their compounds, and of the fundamental principles of organic chemistry, including the classification of organic compounds, and the special study of typical members of the different classes. Special attention is also given to the laws of chemical affinity, and the conditions under which they are modified, especially as they relate to the preparation of mixtures and prescriptions.

The course in practical chemistry in the laboratory includes exercises in chemical manipulation, the study of the chemical manipulation, the study of the chemical properties of the principal metals, and the reactions of acids and their combinations, and the general principles of qualitative analysis, especially as they relate to the detection and separation of the metals and compounds which are of interest to practitioners in all branches of medicine. Each student is provided with a separate table and apparatus, and is required to perform all the usual chemical manipulations under the direction of demonstrators, as well as to exhibit by formulas, on paper, all reactions involved in his tests.

Human anatomy is taught in its relations to all the departments of medicine, including dentistry. The lectures are illustrated by fresh dissections of the human body, and by a rich museum of anatomical specimens, large and well-executed models, and drawings.

The course on Physiology includes lectures, with demonstrations, on the entire human physiology and on physiological chemistry. The study of the physiology of each organ is preceded by a full consideration of its histology. The course is amply illustrated by appropriate diagrams, chemico-physiological experiments, and vivisections.

The lectures on DENTAL PATHOLOGY include such portions of general pathology as have a bearing upon the special subjects taught. Dentition and its possible pathological results receive

careful attention, followed by a detailed consideration of all the diseases to which the teeth and surrounding parts are liable, the character—normal and abnormal—of the oral secretions, and the direct and remote relations which the pathological conditions of the mouth sustain to other portions of the system.

The treatment required under each head is explained, and the recognized processes by which to secure a return to normal conditions are minutely detailed.

MATERIA MEDICA will be taught with special reference to the character and value of those remedies that have any bearing upon dental therapeutics.

Instruction in General and Special Histology will be given in the histological laboratory to the students of the Senior year, the class being divided into sections. Each student is furnished with a microscope. Lectures will be given by the Professor of this Department, who will also have direct supervision of the class work.

CLINICAL INSTRUCTION.

Seven hours daily (except Saturday) are spent in actual practice under the supervision of the Demonstrators. Every student is required to provide his own instruments, except those for extracting. He is expected to keep them in perfect order, and will be provided with a place in which they can be locked when not in use. In the operating room, wires are arranged to a number of the chairs for the use of electric pluggers.

The preparation of Crown and Bridge Work, and Continuous Gum dentures, will be under the charge of specially qualified Demonstrators. The increasing demand for both these forms of artificial appliances has rendered necessary enlarged facilities for instruction in metal working in the mechanical laboratory, and the students are required to become familiar with the manipulation of metals equally with the preparation of other and more common materials.

INFIRMARY AND LABORATORY.

The Infirmary and Laboratory are open to the students for practice every day during the week excepting Saturday afternoon, this being reserved for Clinics that may be given by members of the faculty or instructors.

THE STILLÉ MEDICAL LIBRARY.

This library, founded by Professor Alfred Stillé, for the purpose of promoting scientific research and literary culture, contains upwards of six thousand bound volumes and as many unbound volumes and pamphlets. During the Winter and Spring Sessions it is open to students and graduates of the Dental Department under appropriate regulations.

MUSEUM AND CABINETS.

The WISTAR AND HORNER MUSEUM, founded nearly one hundred years ago, and annually augmented, is unequalled in the United States for the number and variety of its specimens of the normal and the morbid anatomy of the human body. It also contains a large number of preparations in Comparative Anatomy, a rich collection relating to Dentistry, such as the different stages of dentition, abnormal conditions of the teeth, mandibles of the lower animals, etc., and an extensive collection of models, which are used in illustrating the course of lectures. It is open every Wednesday and Saturday from 9 A.M. to 12 M., throughout the sessions. The matriculation fee in this Department confers admission to the Museum.

SESSIONS.

The *Spring Session*, 1890, begins on Monday, May 5th, and ends the last of June. The work of this session is entirely practical; no lectures are delivered.

The Introductory Session begins on Monday, September 22d, and is free to those who enter for the Winter Session.

The Winter Session, 1890-91, begins on Wednesday, October 1st, 1890, and ends on May 1st, 1891.

EXAMINATIONS.

At the close of the first year, examinations are held in Chemistry and Materia Medica. If the student fail to pass, a second examination is afforded him at the beginning of the next Winter Session.

The final examination is in Anatomy, Physiology, Operative Dentistry, Mechanical Dentistry and Metallurgy, and Dental Pathology and Therapeutics. Students who have attended one full term in another dental school recognized by the Faculty will be admitted to the graduating class upon presentation of the required certificate.

Students holding a medical diploma will be admitted to the Senior Class without examination, but will be required to spend a year in the study of practical Dentistry in the Operative and Mechanical Departments, including the regular winters' course of lectures.

Students who have attended but one course in a medical college will be required to take two winter courses in this Department.

An examination is required for entrance to the Junior year. The requirements of this examination are a good English education. Students who have certificates properly attested from colleges, or schools of reputable character, will be accepted without examination.

DEGREES.

At the close of the second year, after passing satisfactorily all examinations, the student will receive the Degree of Doctor of Dental Surgery (D.D.S.), under the following regulations:—

I. The candidate must be of age and of good moral character, and must have attended two full winter sessions—the second, in this institution.

II. He must have dissected at least two parts, must have performed thoroughly and to the satisfaction of the Professor of Operative Dentistry all the usual dental operations, must have undertaken at least one artificial case, and brought it completed, with the patient, to the Professor of Mechanical Dentistry, thirty days before the close of the term, and must have prepared for presentation to the Professor of Mechanical Dentistry, before the 1st of April, a specimen case to be deposited in the College collection. The operations, as well as the work on the artificial case, must have been performed at the College building.

III. He must be present at Commencement, unless excused by the Faculty.

SPECIAL NOTICE.

The Board of Trustees of the University of Pennsylvania having adopted the rule of the National Association of Dental Faculties requiring a three years' course in all Dental Colleges and Departments under its jurisdiction, notice is hereby given that

\$5 00

matriculates entering this Department at the session of 1891–92 will be required to remain three winter sessions before they are entitled to an examination for the degree of Doctor of Dental Surgery.

TEXT-BOOKS AND WORKS OF REFERENCE.

- On Operative Dentistry and Dental Histology: Harris's Principles and Practice; Tomes's Dental Surgery; Taft's Operative Dentistry; Tomes's Dental Anatomy; Guilford's Orthodontia.
- On Mechanical Dentistry and Metallurgy: Richardson's Mechanical Dentistry; Wildman's Instruction in Vulcanite Work; Kingsley's Oral Deformities; Essig's Dental Metallurgy.
- On Anatomy: Leidy's Elementary Treatise on Human Anatomy; Gray's Anatomy; Klein's Histology.
- Dental Follicle: Legros and Magitot, translated by M. S. Dean.
- On Chemistry: Fownes's or Wurtz's Chemistry; Wormley's Micro-Chemistry of Poisons; Muter's Analytical Chemistry; Mitchell's Dental Chemistry.
- On Physiology: Foster's Physiology with Frey's Compendium of Histology; Tyson's Cell Doctrine; Yeo's Physiology.
- On Materia Medica: H. C. Wood's Therapeutics; Geo. B. Wood's Therapeutics; Wood and Bache's Dispensatory.
- On Surgery: Agnew's Surgery; Ashhurst's Surgery; Billroth's Surgical Pathology.

EXPENSES. WINTER TERM.

Matriculation Fee

First Year.

| Tuition Fee | | | | | ٠ | | | • | ٠ | • | ٠ | • | • | ٠ | ٠ | ٠ | \$100 | 00 |
|---------------------|----|-----|----|--|----|--|---|---|---|---|---|---|---|---|---|---|-------|----|
| | | | | | on | | | | | | | | | | | | | |
| Tuition Fee | | | | | | | ٠ | | ٠ | | | | ٠ | ٠ | | | \$100 | 00 |
| Fee for Dissection | | | | | | | | | | | | | | | | | IO | 00 |
| Graduation Fee . | | | , | | | | | | | | | | | | | | 30 | 00 |
| For each additional | ١٦ | ze: | ar | | _ | | | | | | | | | | | | \$100 | 00 |

The payment of the \$100 Tuition Fee may be divided as follows: \$50 on entering, and the balance on or before November 1st. If any part is left unpaid after this date, \$10 will be added to the Tuition Fee.

At the beginning of the first year, each student is required to make a deposit of five dollars with the Professor of Chemistry, to cover "breakage" in the chemical laboratories. Any balance remaining is returned.

Instruments for the first year can be procured at from \$35 to \$50. A Dental Engine for the second year, costing from \$30 to \$50, will complete the outfit. These instruments will all be required in general practice.

Board can be obtained in Philadelphia for \$4 per week and upwards. Further information may be obtained from

JAMES TRUMAN, Dean, 3249 Chestnut Street, Philadelphia, Pa.

The subjoined reports give some conception of the character and of the mass of work performed in the Operative and Mechanical Departments; but the amount of costly material and of careful attention necessary for the insertion of 5,162 gold fillings can be appreciated only by the experienced operator.

The number of patients (5,062) exhibits not only a gratifying confidence in the management of these departments, but also the value of the service to a large class of persons of limited means

OPERATIVE DEPARTMENT.

Session of 1888–9.

| Number of Pa | ati | en | ts | , | | | | | | | | 5,0 | 062 | 2. | | | | |
|---------------------------|-----|----|----|---|----|----|---|---|---|---|---|-----|-----|----|---|---|---|--------|
| Gold Fillings | | | | | | | | | , | | | | | | | | | 5,162 |
| Tin Fillings | | | | | | | | | | | | | | | | | | 1,025 |
| Cement Fillings | | | | | | | | | | | | | | | | | | 1,261 |
| Amalgam " | | | | | | | | | | | | | | | | | | 508 |
| Gutta Percha Fillings | | | | | | | | | | | | | | | | | | 795 |
| Canal " | | | | | | | | | | | | | | | | | | 320 |
| Pulps capped | | | | | | | | | | | | | _ | | | | | 236 |
| "devitalized | ٠ | | ٠ | ٠ | ٠ | ٠ | ٠ | | ٠ | | | ٠ | ٠ | ٠ | | | | 257 |
| " extracted | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | | | ٠ | | | ٠ | | 231 |
| Artificial Crowns | • | ٠ | ٠ | | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | 151 |
| Pulpitis | • | ٠ | ٠ | ٠ | • | • | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | | ٠ | ٠ | ٠ | 411 |
| Treatment Pulp Canals | • | • | ٠ | • | ٠ | ٠ | ٠ | • | • | ٠ | • | ٠ | ٠ | ٠ | ٠ | ٠ | | |
| Pericementitis | • | • | • | • | • | ٠ | • | • | • | • | ٠ | • | ٠ | ٠ | | • | ٠ | 133 |
| Inflammation of Gums | • | • | • | • | | | • | • | • | • | • | | ٠ | • | ٠ | • | ٠ | 161 |
| Pyorrhœa Alveolaris | • | • | | • | • | • | • | ٠ | • | • | • | | | • | | • | • | 120 |
| Irregularities Corrected | | • | • | • | · | • | • | • | • | • | • | • | | • | | • | • | 91 |
| Salivary Calculi | • | Ì | • | | · | | | | | | | Ċ | Ċ | · | | · | • | 471 |
| Teeth and Roots extracted | | | | i | · | | | i | i | Ċ | į | Ċ | Ċ | | Ċ | Ċ | Ċ | 4,287 |
| | | | | | | | | | Ť | | | | Ċ | ľ | | | | |
| | | | | T | ot | al | | | | | | | | | | | | 16,786 |

Amount of gold used for fillings, and exclusive of that used for plate and crown work in Laboratory, 67 ounces (5 lbs. 7 oz.).

MECHANICAL DEPARTMENT.

Session of 1888-9.

| | Νι | ımt | er | 0 | f 1 | oat | ie | nts | s. | | | | | | | | | | 68 | 34. | | | | |
|---------------------|------|-----|----|---|---------|-----|----|-----|--------|----------|-----|----|---|---|---|---|---|---|----|-----|---|---|-----|-----|
| Full cases . | | | | | | | | | | | | | | | | | | | | | | | | 336 |
| Partial cases | 3 . | | | | | | | | | | | | | | | | | | | | | | | 171 |
| Pivot teeth, Bridge | | e | an | a | . Crown | | vn | V | N or i | | rk. | | ٠ | | | ٠ | • | ٠ | ٠ | ٠ | ٠ | ٠ | 101 | |
| Repairing ca | ases | • | ٠ | ٠ | ٠ | ٠ | ٠ | • | ٠ | ٠ | ٠ | ٠ | ٠ | | | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | 23 |
| Regulating | | | • | ٠ | ٠ | • | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | ٠ | | ٠ | 81 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | Γ | ot. | al | | | | | | | | | | | | 7:2 |

MAY I, 1889.

Doctor of Dental Surgery—

Albury, Robert W., Ayala, Victor M., Barnett, George E., Bruce, James A., Calves, Antonio D., Cheney, Lucius W. Cooney, Edward J. M., Cooper, Arthur W., Culpeper, Wm. A., M.D., Darby, George D. B., DeLacy, William P., DeWalt, J. Edward, Dielil, Walter R., Dunbar, Henry T., Eaton, Horace E., Essig, Norman S., Faust, William F., Focht, Frank D., Fordham, J. Merritt, Fuller, John G., Gerhards, Georg, Goldsmith, Adin, A. Goldsmith, Samuel L., Gray, George R., Grotefend, George A., Guiteras, Albert F., Hart, Frank T. Horgan, Cornelius F., Keyes, Charles, Lamson, Frank E., Lamson, William F., Leake, Walter J., Littig, Henry A., Luxemburger, George, Mayer, George H., Miro, Josè Luis, Mogel, Peter S., Nunez, Emilio, Oser, William,

Nassau, Matanzas, Walla Walla, Melbourne, Havana, Lee, Providence, Omaha, Barbados, Lansdowne, Scranton, Freeport, Pittsburgh, N. Hartland, Parrsboro, Philadelphia, Womelsdorf, Philadelphia, Scranton, Philadelphia, Düsseldorf, Chester, Philadelphia, Worcester, Shasta, Matanzas, Pennington, Philadelphia, Rio de Janeiro, Worcester, New York. Lockport, Davenport, Scranton, Mauch Chunk, Havana, Bernville, Sagua, Basel,

Bahamas. Cuba. Washington T. Australia. Cuba. Massachusetts. Rhode Island. Nebraska. West Indies. Pennsylvania. Pennsylvania. Illinois. Pennsylvania. Vermont. Nova Scotia. Pennsylvania. Pennsylvania. Pennsylvania. Pennsylvania. Pennsylvania. Germany. New Hampshire. Pennsylvania. Massachusetts. California. Cuba. New Jersey. Pennsylvania. Brazil. Massachusetts. New York. New York. Iowa. Pennsylvania. Pennsylvania. Cuba. Pennsylvania. Cuba. Switzerland.

| Parry, Ira W., |
|---------------------------|
| Peeso, Frederic A., |
| Reap, Joseph C., |
| Rees, Frank W., |
| ReQua, Leroy, |
| Rhone, Charles E., |
| |
| Robinson, John Best, |
| Root, George S., |
| Roys, Frank E., |
| Seebold, Frank P., |
| Stiles, William E., M.D., |
| Stine, Frederick M., |
| Sweetnam, Robert W., |
| Trogdon, Rosecrans, |
| Velazquez, Miguel A., |
| White, Leonard, |
| Wix, William H., |
| Woodward, Wilber S., |
| Woolsey, Charles G., |
| Woolsey, Charles G., |
| |

Utica, Syracuse, Pittston, Walla Walla, Rochester, Bellefonte, Philadelphia, Lockport, Bridgeport, Millersburg, Pittston, Walla Walla, Manistee, Paris, St. Jose, Sumter, Wilmington, Cincinnati, Girard,

New York. New York. Pennsylvania. Washington T. New York. Pennsylvania. Pennsylvania. New York. Connecticut. Pennsylvania. Pennsylvania. Washington T. Michigan. Illinois. Costa Rica. South Carolina. Delaware. Ohio. Pennsylvania.

Lowry, Samuel S., Ribas, Domingos P., Ruiz, Jesus, Sauers, Frederick, June 5, 1889.

Brookville,
Pelotas,
Bogota,
Philadelphia,

Pennsylvania. Brazil. U. S. of Colombia. Pennsylvania.

SUMMARY.

| | | | - 5 | 50 | TATTATT | AKY. |
|-----------------|--|--|-----|----|---------|------------------------|
| Australia | | | | | 1 | Nebraska |
| Bahamas | | | | | I | New Hampshire |
| Barbados, W. I. | | | | | | New Jersey |
| Brazil | | | | | | New York 6 |
| California | | | | | | Nova Scotia |
| Connecticut . | | | | | | Ohio I |
| Costa Rica | | | | | I | Pennsylvania 21 |
| Cuba | | | | | 5 | Rhode Island I |
| Delaware | | | | | | South Carolina |
| Germany | | | | | | Switzerland |
| Illinois | | | | | | U. S. of Colombia I |
| Iowa · · · · | | | | | | Vermont I |
| Massachusetts | | | | | | Washington Territory 3 |
| Michigan | | | | | | _ |
| | | | | | | 62 |

IN THE FACULTY OF DENTISTRY.

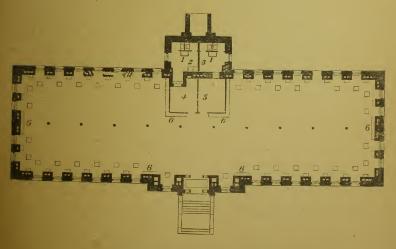
At the Examination for Degrees, Honorable Mention for averages, exceeding 90, to

Samuel L. Goldsmith, J. Merritt Fordham, Walter R. Diehl, Robert W. Sweetnam, Horace E. Eaton, Frederick W. Stine, Walter J. Leake, Frank W. Rees,

Pennsylvania. Pennsylvania. Pennsylvania. Michigan. Nova Scotia. Washington. New York. Washington.

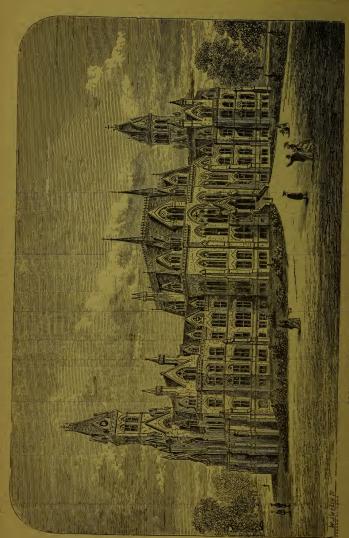


BUILDING ERECTED FOR THE ACCOMMODATION OF THE OPERATIVE CLINICS AND CHEMICAL LABORATORIES.



PLAN OF DENTAL OPERATING ROOM





UNIVERSITY OF PENNSYLVANIA. COLLEGIATE AND SCIENTIFIC DEPARTMENTS.